REMARKS

Applicant thanks the Examiner for the remarks and analysis contained in the Office Action. Claims 22 and 24 have been cancelled and new claims 25 and 26 are presented. Applicant respectfully requests reconsideration of the application.

Applicant respectfully traverses the rejections based upon the combination of Gerardi, et al. and Yamashita. The combination cannot be made. It is axiomatic that there must be a sufficient legal motivation to make a combination to establish a prima facie case of obviousness. There is no motivation here because the proposed combination provides no benefit and would interfere with the intended operation of the Gerardi arrangement.

The capacitance of the Gerardi sensors is used for measurements (see, e.g., col. 14, lines 9-10, 41-42, 65-67; col. 15, lines 17-19, 32-36). There would be no benefit to adding the resistor R_0 of Yamashita as proposed by the Examiner because that would not provide any meaningful additional signal processing of the measured capacitance. Without any benefit, there is no motivation to make the combination and there is no prima facie case of obviousness.

The Examiner's stated "motivation" for making the combination is unfounded. Yamashita does not teach using a single resistor "for the purpose of suppressing an output of the sensor in order to provide a threshold level for the sensor output." Instead, Yamashita teaches the combination of a resistor and a capacitor to provide a filter to suppress the airbag activation sensor output of that reference.

Even if the Examiner were correct, there would be no benefit to adding such signal suppression to provide some sort of threshold because Gerardi et al. already provide a "training session to teach the computer ... to identify a baseline ... of the system." (col. 17, lines 21-14).

Adding a resistor for "signal suppression" (assuming that would be the effect, which it is not) would be redundant at best. There is no benefit to making the proposed combination.

Moreover, Yamashita teaches a combined resistor and capacitor combination to provide a filter that would interfere with the operation of the Gerardi et al. system if they were combined as suggested by the Examiner. If one were to follow the Examiner's reasoning and Yamashita's teachings, the required addition to Gerardi et al. would be the resistor and the capacitor. The added filter would directly interfere with the measured capacitance of the Gerardi sensor because the resulting parallel capacitor arrangement would alter the sensor capacitance and distort the measured response. Accordingly, the Examiner's proposed combination defeats the intended operation of the primary reference. Therefore, the combination cannot be made.

The additional references do not remedy the defects in the proposed base combination of Gerardi et al. and Yamashita. Further, the Examiner is misinterpreting the references in several respects and even if the proposed combinations could be made, they are not the same as the claimed invention.

This case is in condition for allowance.

Respectfully submitted,

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